2SC4627G

Silicon NPN epitaxial planar type

For high-frequency amplification

■ Features

- Optimum for RF amplification of FM/AM radios
- High transition frequency f_T
- SS-Mini type package, allowing downsizing of the equipment and automatic insertion through the tape packing

■ Package

- Code
  SSMini3-F3
- Marking Symbol: U
- Pin Name
  1. Base
  2. Emitter
  3. Collector

■ Absolute Maximum Ratings $T_a = 25°C$

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	V_{CBO}	30	V
Collector-emitter voltage (Base open)	V_{CEO}	20	V
Emitter-base voltage (Collector open)	V_{EBO}	3	V
Collector current	I_C	15	mA
Collector power dissipation	P_C	125	mW
Junction temperature	T_j	125	°C
Storage temperature	T_{stg}	−55 to +125	°C

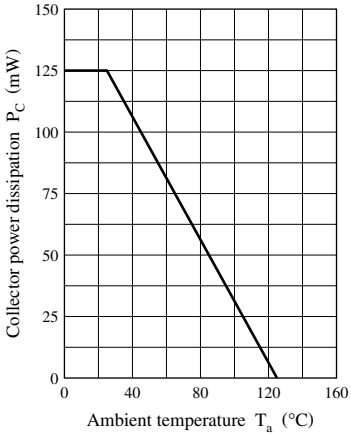
■ Electrical Characteristics $T_a = 25°C \pm 3°C$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base voltage (Emitter open)	V_{CBO}	I_C = 10 μA, I_E = 0	30			V
Emitter-base voltage (Collector open)	V_{EBO}	I_E = 10 μA, I_C = 0	3			V
Base-emitter voltage	V_{BE}	V_{CB} = 6 V, I_E = −1 mA		720		mV
Forward current transfer ratio *	h_{FE}	V_{CB} = 6 V, I_E = −1 mA	65		160	—
Transition frequency	f_T	V_{CB} = 6 V, I_E = −1 mA, f = 200 MHz	450	650		MHz
Reverse transfer capacitance (Common emitter)	C_{re}	V_{CB} = 6 V, I_E = −1 mA, f = 10.7 MHz		0.8	1.0	pF
Power gain	PG	V_{CB} = 6 V, I_E = −1 mA, f = 100 MHz		24		dB
Noise figure	NF	V_{CB} = 6 V, I_E = −1 mA, f = 100 MHz		3.3		dB

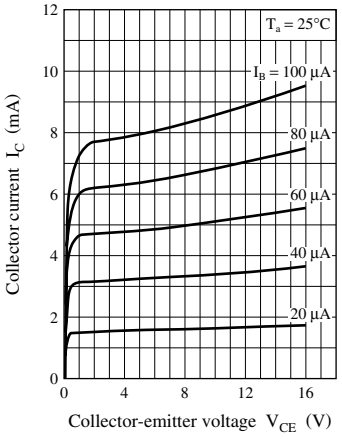
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.
2. *: Rank classification

Rank	C
h_{FE}	65 to 160

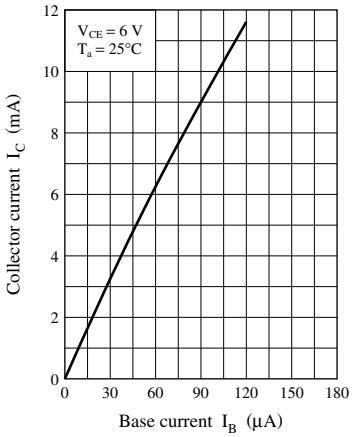
P_C — T_a



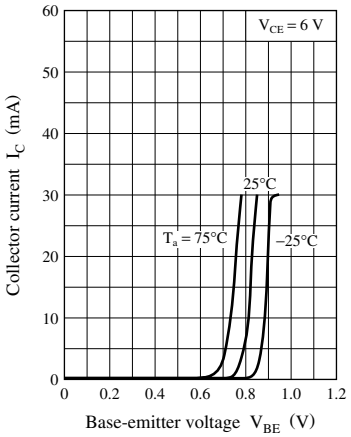
I_C — V_{CE}



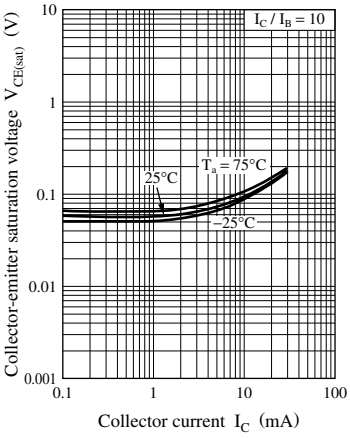
I_C — I_B



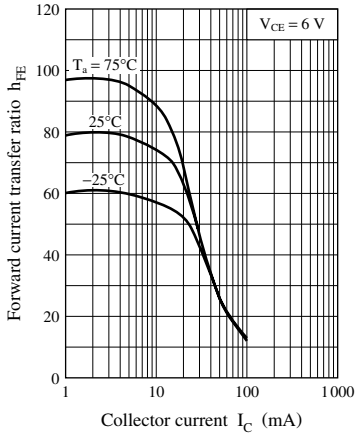
I_C — V_{BE}



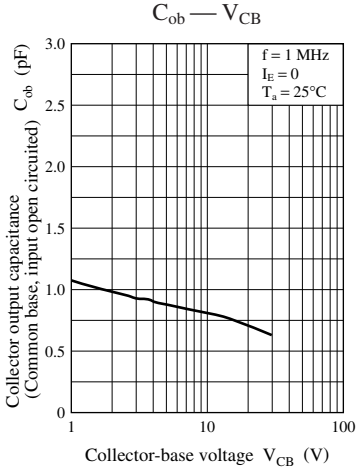
$V_{CE(sat)}$ — I_C



h_{FE} — I_C

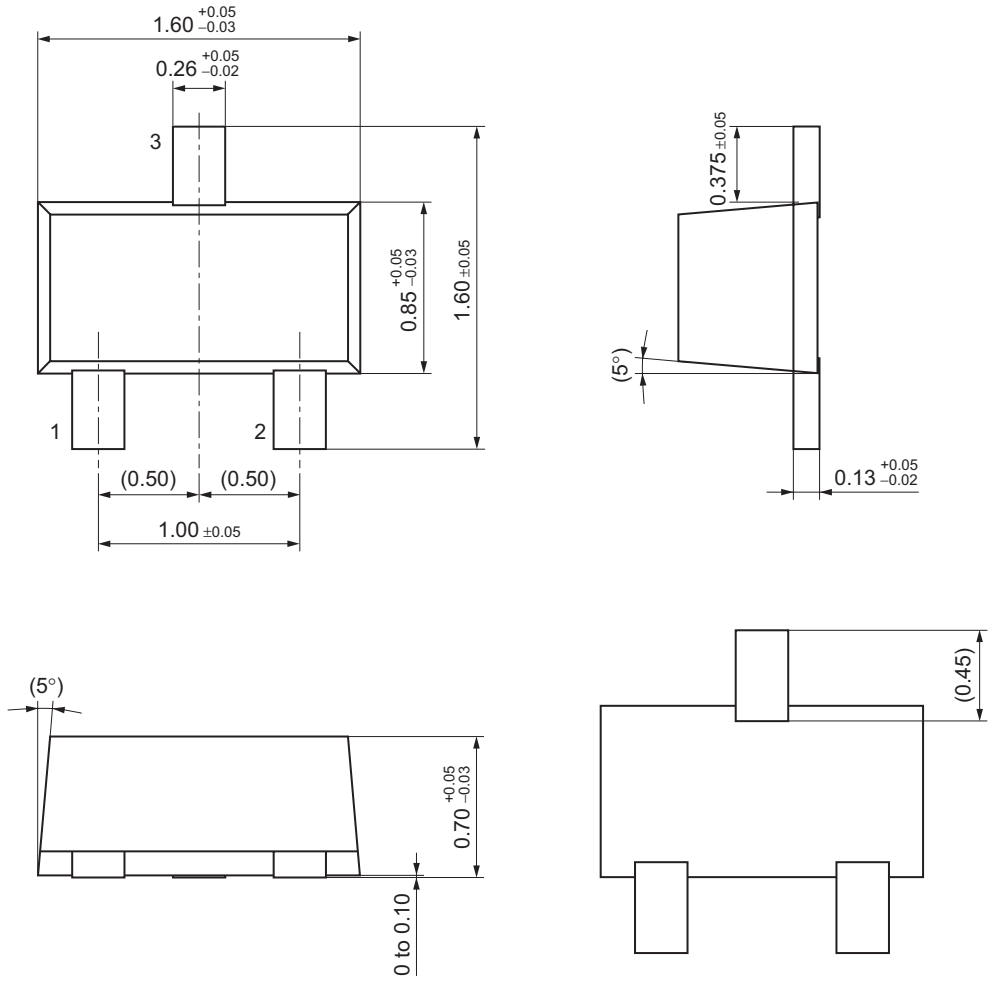


C_{ob} — V_{CB}



SSMini3-F3

Unit: mm



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